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# (12) United States Patent

#### Nanaumi

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# (54) SUBJECT INFORMATION ACQUISITION DEVICE, METHOD FOR CONTROLLING SUBJECT INFORMATION ACQUISITION DEVICE, AND STORAGE MEDIUM STORING PROGRAM THEREFOR

(71) Applicant: CANON KABUSHIKI KAISHA,

Tokyo (JP)

(72) Inventor: Ryuichi Nanaumi, Kyoto (JP)

(73) Assignee: Canon Kabushiki Kaisha, Tokyo (JP)

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# (58) Field of Classification Search

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Primary Examiner — Michael Rozanski (74) Attorney, Agent, or Firm — Canon U.S.A., Inc., IP Division

#### (57) ABSTRACT

A subject information acquisition device includes an elastic wave receiving unit configured to receive elastic waves generated inside a subject and output a reception signal; and a signal processing unit configured to acquire subject information in an interest region of the subject, on the basis of the reception signal. In measurement states, the elastic wave receiving unit receives elastic waves and outputs reception signals corresponding to the measurement states. The signal processing unit corrects the reception signals by weighting factors based on measurement parameters in the measurement states, and acquires corrected reception signals in the interest region corresponding to the measurement states. The signal processing unit acquires the subject information in the interest region, on the basis of the sum of the corrected reception signals and the sum of the weighting factors.

### 18 Claims, 7 Drawing Sheets

